

REMARKS

Claims 1-4, 6-11, 13, 14, 17, 18, 20, 24 and 103-109 are all the claims pending in the application.

I. Preliminary Matters. The Examiner indicated that the incorrect serial number appeared in the heading of Applicant's August 6, 2006, response. Applicant regrets the error and will comply with the Examiner's request for the correct serial number throughout all papers.

The Examiner indicated that the drawings received January 17, 2006, are missing page 9/10. It is believed that the date "January 17, 2006", is incorrect, as applicant did not file any documents in this application on that date. However, a copy of page 9/10 which was filed on November 20, 2001, with the Response to "Notice to File Corrected Application Papers" is enclosed. Applicant respectfully requests that the Examiner indicate acceptance of the drawings in the next communication.

II. Summary of the Office Action. The Examiner indicated that the previous objections and rejections under 35 USC 112 and the previous 102 rejection of claims 1-4, 6, 7, 9-11, 13, 14, 17, 18, 24 and 103-109 have been withdrawn in light of applicant's amendments filed August 12, 2006. Claims 1-4, 6-11, 13, 14, 17, 18, 20, 24, and 103-109 were rejected under 35 USC 103(a) as unpatentable over Hisateru and Yamaoka et al. (US 5484619). The Examiner indicated that the arguments filed August 6, 2006, (relating to Hisateru and Yamaoka) were not persuasive. The Examiner was not persuaded that Hisateru was non-enabling because "it would be expected that one of ordinary skill in the art would be able to determine an appropriate amount of CO<sub>2</sub> for the fish to be exposed to", and stated further that "the aspect of the reference which the applicant suggest causes the reference to be non-enabling is not claimed by applicant."

The Examiner referred to the new obviousness rejection with respect to neither Hisateru nor Yamaoka teaching of “using the animals membranes to super-purify partially purified smoke.”

The Examiner also was not persuaded that Yamaoka may not be incorporated into Hisateru because “the test for obviousness is what the combined teachings of the references would have suggested to those of ordinary skill in the art.”

III Claims Rejections Under 35 USC 103. The rejection of claims 1-4, 6-11, 13, 14, 17, 18, 20, 24 and 103-109 as obvious over Hisateru in view of Yamaoka it al. (US 5484619) must be withdrawn.

The Examiner states that “Since the smoke would necessarily pass through the membranes of the fish upon exposure and entry into the fish body, the references teach of super purifying the smoke with the fish membrane, thus preventing smoke flavor from entering the meat of the fish.” However, contrary to the Examiner’s statement, the references do NOT teach of removing smoke flavor by passing smoke through fish membranes. Hisateru relates to carbon dioxide, which is tasteless and odorless, and Yamaoka specifically states that it is an object to “impart agreeable taste and smell.” Col. 1, line 39. Nowhere in either Hisateru nor Yamaoka is it disclosed or suggested that the animals’ membranes can super purify smoke. Thus, the combination of Hisateru and Yamaoka does NOT meet the limitation of the animal’s membranes super purifying the smoke”, let alone combine this function with in vivo asphyxiation with a treatment gas..<sup>1</sup>

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<sup>1</sup> Of course, there is no motivation to combine Hisateru, which relates to treating live fish with tasteless carbon dioxide, and Yamaoka, which relate to treating fillets with smoke that “impart[s] agreeable taste and smell.” Neither Hisateru nor Yamaoka is directed to removing taste, and Yamaoka instead is directed to a process that imparts taste.

Indeed, the ordinary artisan would expect that smoke flavor would be imparted to the fish, as it is well known that smoke and other flavors penetrate membranes, including gill membranes, and affect the taste of flesh. US Patent 6902675 to Kelly, et al., discloses that fish pick up off-flavor through their gills from compounds in the water. Col. 2, lines 60-66. Salmon is conventionally smoked with the skin on the fish. Sausage is meat encased in membrane (intestine) and is conventionally smoked through the membrane. Various other references also disclose a problem with off-flavor picked up from the environment through the gills of fish. See van der Ploeg, "Testing Flavor Quality of Preharvest Channel Catfish", Southern Regional Aquaculture Center, November 1991, col. 2, lines 5-8 ("Regardless of the source, compounds are absorbed by fish through the gills and accumulate in the flesh"); Killian, H. Stephen, "Off-flavor (Catfish)", University of Arkansas, paragraphs 1 to 5 (various compounds, including diesel fuel, cause off-flavor, and "Fish absorb chemical compounds through their gill membranes as well as through their digestive tract.")). Accordingly, the ordinary artisan would expect that smoke in the water would be absorbed through the gill membranes and into the fish, and thereby flavor the flesh. Thus, "preventing smoke flavor from entering the meat of the fish" is a totally unexpected result and a totally new function. No reference has been cited to show that it was known that fish gills could prevent flavor from being imparted to fish flesh, and indeed many references teach exactly the opposite. In view of these teachings of the prior art and the knowledge of the ordinary artisan, combining Hisateru and Yamaoka to assert that they teach or suggest super purifying smoke through the animals' membranes is impermissible hindsight reconstruction.

In addition, even if the references taught removal of smoke flavor, they teach against treatment throughout an entire fish SOLELY by passing smoke through the gills and circulatory

system of the fish. Hisateru clearly requires an additional step of placing the hibernating fish into a sealed container having CO2 in a predetermined amount, so that CO2 is introduced also from the outside or outer surface of the fish body. Page 1, claim, last 4 lines; page 4, last paragraph (or second to last paragraph for Japan Examined Application). The Examiner recognized that this sealing of the fish into a sealed container containing a predetermined amount of CO2 is a characteristic of Hisateru, because when Applicant argued that Hisateru is non-enabling for failing to teach a specific amount of CO2, the Examiner stated "the aspect of the reference which the applicant suggest [sic] causes the reference to be non-enabling is not claimed by applicant." Yamaoka is limited to pieces of fish or meat, col. 3, lines 39-40, and not to treating live fish. Thus, the references teach against the present method, which does not require additional external treatment steps.

IV. Conclusion. In view of the above, it is respectfully submitted that this application is now in condition for allowance, and an early action to that effect is earnestly solicited. If the claims would be in condition for allowance except for minor revisions, Applicant's attorney courteously invites a telephone interview initiated by the Examiner so that such revisions can be effected by Examiner's amendment.

Respectfully submitted,

Date: \_\_\_\_\_

5/2/07



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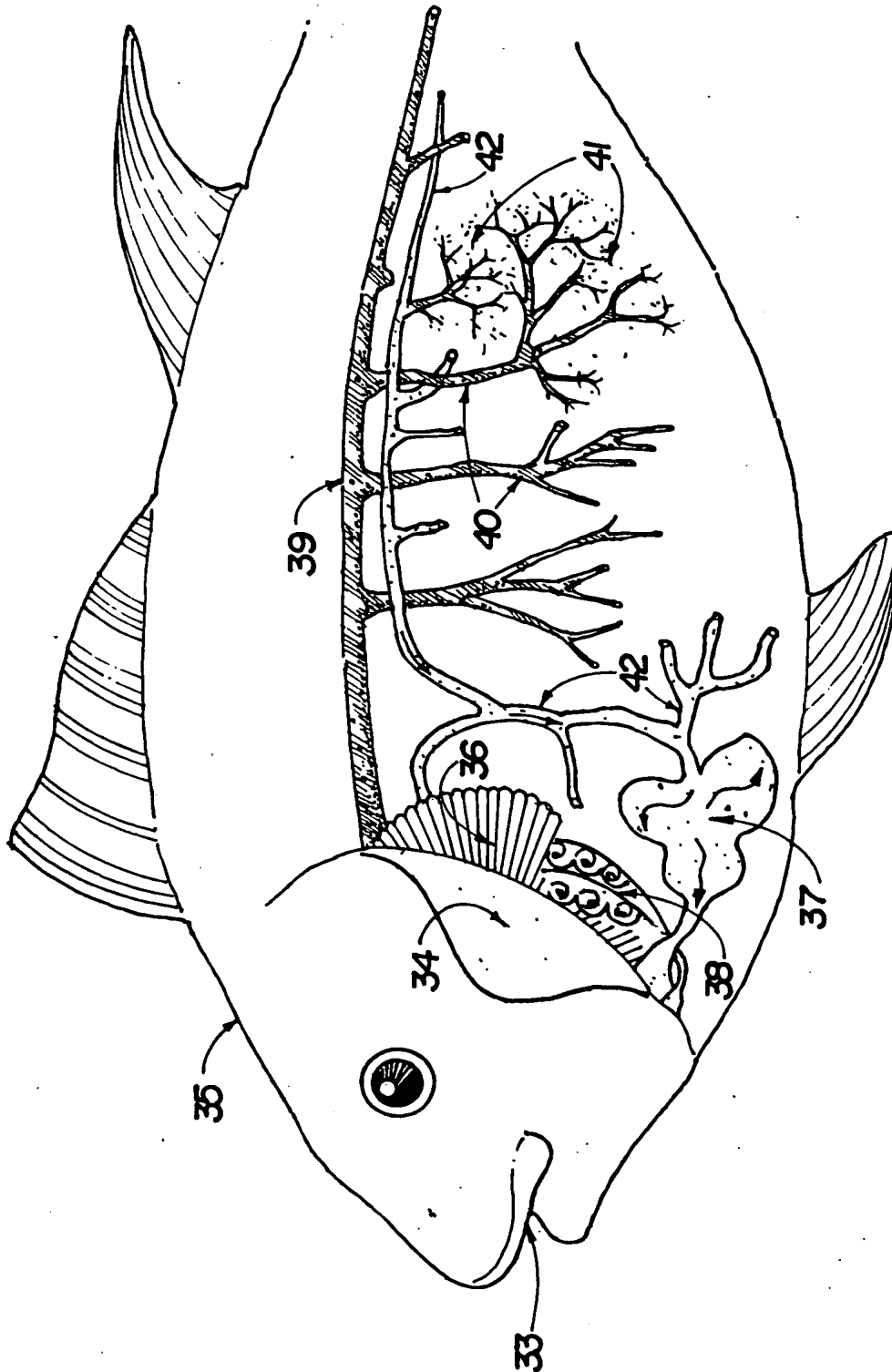


Fig.10

Sheet 9 of 10

Inventor: WILLIAM R. KOWALSKI  
For: A PROCESS TO TREAT FISH WITH  
TASTELESS SMOKE OR CARBON  
MONOXIDE THROUGH THE RESPIRATORY  
AND CIRCULATORY SYSTEMS  
Docket No. 2001-5  
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